Circle-A-Sketch

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PARTS:

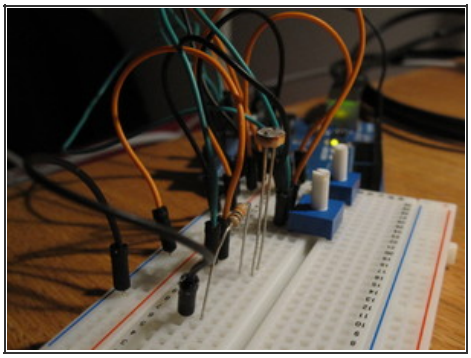
- Arduino microcontroller (1)
- CdS Photoresistor (1)
- Potentiometer, 100kΩ (2)
- Jumper wires (1)
- 10K Resistor (1)

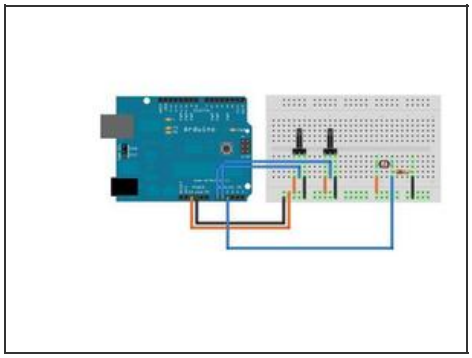
SUMMARY

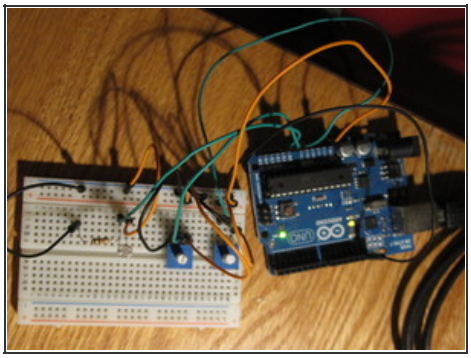
This simple project uses an Arduino, a photoresistor, 2 potentiometers, and a resistor and uses basic serial communication between the Arduino and your computer.

Basically, the user can draw by controlling two potentiometers (drawing knobs) and the photoresistor determines how dark the circle will be drawn.

Step 1 — Set up the hardware.

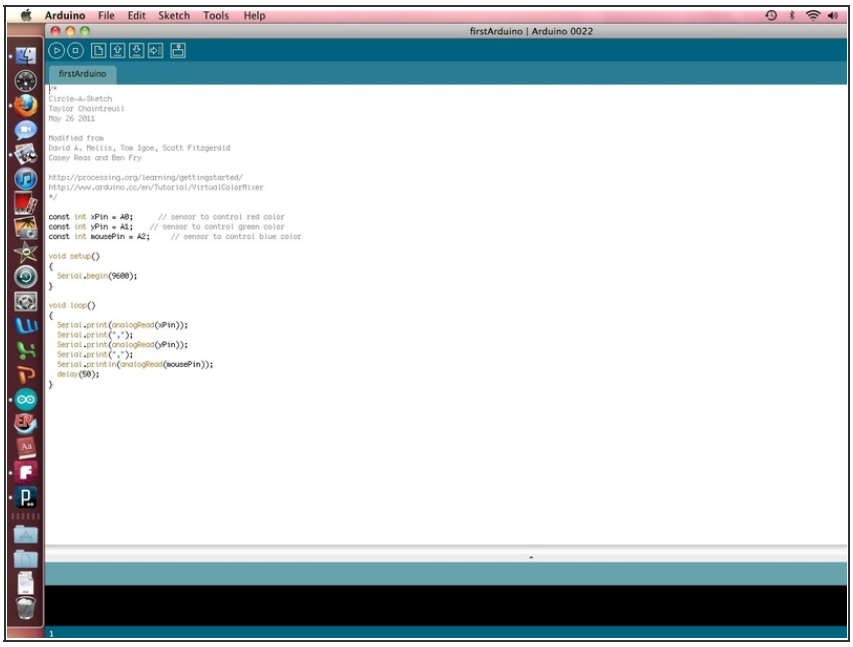






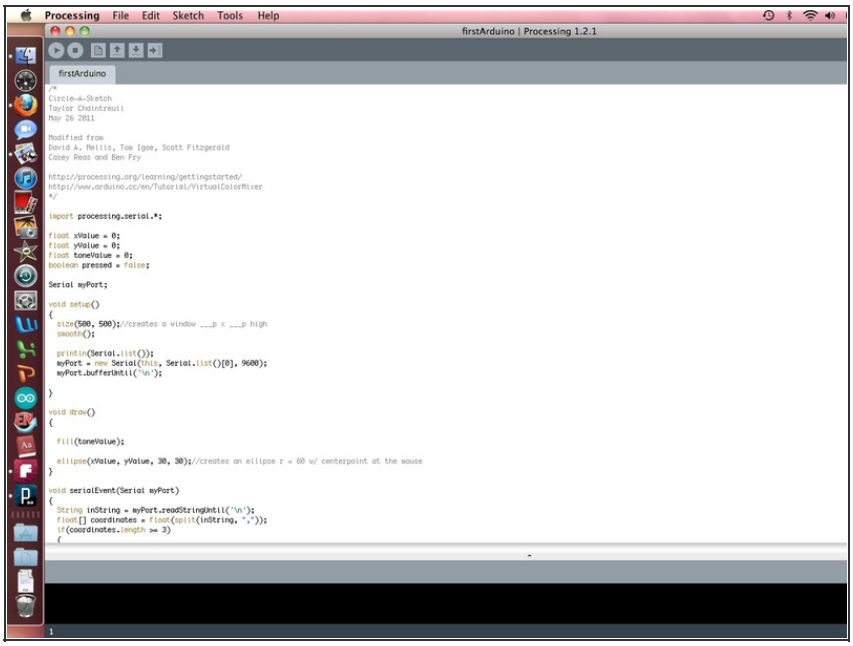
- Set up two potentiometers next to each other. They will act as the horizontal and vertical controls for the Processing Circle-A-Sketch.
  - The pin on one end will go to a 5V source, the middle pin will go to an analog pin on the Arduino (either A0 or A1) and the other end pin will go to ground ("Gnd").
- Photoresistor
  - Create a voltage divider with the 10k resistor.

Step 2 — Upload the Arduino code.



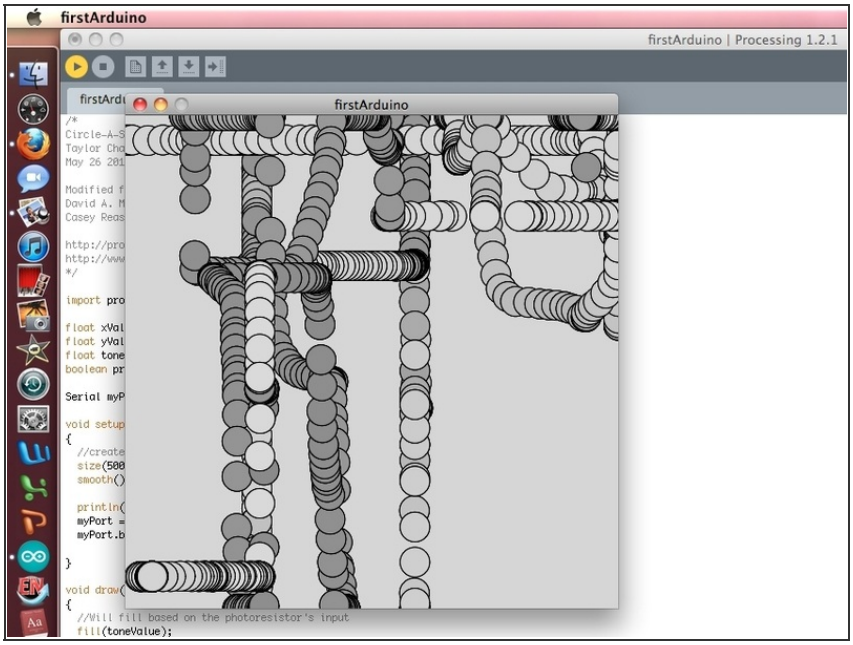
- Connect the Arduino to your computer.
- Verify/Compile the code and then upload it to the Arduino board.

Step 3 — Processing



- Download and install Processing.
- Open Processing and upload the Processing code.
- Click the Run button and get ready to sketch!

Step 4 — That's it!



- Draw and experiment.

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